# Compliance Component

## DEFINITION

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|---|---|
| *Name* | Remote Access Server (RAS) |
| *Description* | A Remote Access Server is a networking device or server that allows one or multiple remote computer users to connect over the Public Switched Telephone Network to a central location to send or retrieve data. Connection on the Public Switched Telephone Network (PSTN) can be allowed over Plain Old Telephone Service (POTS) or through a digital network medium, such as Integrated Services Digital Network (ISDN). |
| *Rationale* | Remote Access Server is a viable means to connect remote users when another connectivity method is prohibitively expensive. RAS allows users to be connected to a Central Office location to send and retrieve data. |
| *Benefits* | <ul><li>Cost Containment</li><li>Virus Mitigation</li><li>Simplifies Computer Updates</li><li>Network Access</li></ul> |

## ASSOCIATED ARCHITECTURE LEVELS

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|---|---|
| *Specify the Domain Name* | Infrastructure |
| *Specify the Discipline Name* | Remote Access |
| *Specify the Technology Area Name* | Remote Access Server (RAS) |
| *Specify the Product Component Name* | None |

## COMPLIANCE COMPONENT TYPE

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| *Document the Compliance Component Type* | Guideline |
| *Component Sub-type* | None |

## COMPLIANCE DETAIL

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| *State the Guideline, Standard or Legislation* | A Remote Access Server has the following characteristics:<br><br>A hardware device to concentrate remote access calls which would include a server, router or an appliance.<br><br>The ability to take an incoming call from the Public Switched Telephone Network using an Analog or Digital Modem, verify the users identity through a network protocol and allows access to shared resources.<br><br>A RAS has the ability to allow multiple users to access the shared resources through a bank of modems. These modems can be analog or digital. Analog modems are used in conjunction with Plain Old Telephone Service (POTS). Digital Modems are used in conjunction with advanced services such as ISDN or Time Division Multiplexing (TDM). Using advanced technologies such as an ISDN Basic Rate Interface |

(BRI) or Primary Rate Interface (PRI) allows for cleaner transmission and greater data transfer rates. ISDN can be used on one end on the connection with an analog connection on the other end. The ISDN is typically used on the Central location while the other end of the connection uses the lower cost solution of POTS and the analog modem.

Identification of the user credentials can be accomplished through various means. Two of the most common methods are through the Windows User Database or an Access Control Server. Windows allows the connection of users through a RAS connection using a defined variable in the user database. Access Control Servers using the protocols of Remote Access Dial-in User Service (RADIUS) or Terminal Access Control Access Control System (TACACS) to verify the user. Access Control Servers can have additional features not available to a Windows user database system such as enhanced logging, the ability to assign an individual IP address to a user or ability to assign an access control list to a user or group of uses. Best practices would dictate using 2 factor authentications such as USB tokens, SecurID or certificates.

Logging of a user's access is essential to a Remote Access Server. Logging can be accomplished by using the Event Log (Windows), Access Control Server logging (RADIUS or TACACS), SYSLOG or other logging services. Logging should record the time of login, the user id, and the IP address of the user id.

Reference the Security Domain document for further authentication guidelines.

| Document Source Reference # | IETF RFC 2058. 2059, 2138, 2139, 2548, 2618, 2619, 2620, 2621, 2865, 2866, 2867, 2868, 2869 and 4014 | | |
|---|---|---|---|
| **Compliance Sources** | | | |
| Name | Internet Engineering Task Force | Website | www.ietf.org |
| Contact Information | iesg-secretary@ietf.org | | |
| Name | | Website | |
| Contact Information | | | |
| **KEYWORDS** | | | |
| List Keywords | Remote Access, Remote Access Server, Dial Up, PSTN, POTS, ISDN, Modems, Analog Modems, Digital Modems, RADIUS, TACACS, Windows, Remote User | | |
| **COMPONENT CLASSIFICATION** | | | |
| Provide the Classification | ☐ Emerging    ☒ Current    ☐ Twilight    ☐ Sunset | | |
| Sunset Date | | | |

## COMPONENT SUB-CLASSIFICATION

| Sub-Classification | Date | Additional Sub-Classification Information |
|---|---|---|
| ☐ Technology Watch | | |
| ☐ Variance | | |
| ☐ Conditional Use | | |

### Rationale for Component Classification

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| Document the Rationale for Component Classification | |

### Migration Strategy

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| Document the Migration Strategy | |

### Impact Position Statement

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| Document the Position Statement on Impact | |

## CURRENT STATUS

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| Provide the Current Status | ☐ In Development    ☐ Under Review    ☒ Approved    ☐ Rejected |

## AUDIT TRAIL

| Creation Date | 2-24-2005 | Date Approved / Rejected | 5/10/05 |
|---|---|---|---|
| Reason for Rejection | | | |
| Last Date Reviewed | | Last Date Updated | 4/7/05 |
| Reason for Update | | | |